

U.S. Patent Application No. 09/938,894
Amendment dated January 18, 2005
Reply to Office Action of October 19, 2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-25 (canceled)

Claim 26 (new): An analyte-manipulation device, comprising:

at least two coextensive, elongated, electrically-conductive members disposed in fixed, spaced relation;

an AC power source electrically connected to the electrically-conductive members and an electrical field gradient established by the AC power source between the members wherein the electrical field gradient is sufficient to retain a sample when the members are removed from a sample holder; and

a sample retained by the electrical gradient between the members wherein the members are outside of a sample holder from which the retained sample has been removed.

Claim 27 (new): The device of claim 26, further comprising a control unit for controlling the position of the electrically-conductive members with respect to said sample holder.

Claim 28 (new): The device of claim 26, further comprising a holder-handling apparatus for moving said sample holder toward and away from said electrically-conductive members.

Claim 29 (new): An analyte-manipulation device, comprising:

a movable support;

at least two coextensive, elongated, electrically-conductive members;

said electrically-conductive members being held by said support for movement therewith;

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 said electrically-conductive members having spaced-apart end regions, with an intervening region between said end regions defining a concentration zone;

 an AC power source electrically connected to said electrically-conductive members and an electrical field gradient established by the AC power source between said end regions effective to trap at least a portion of a polarizable analyte present in an electrolyte; and

 the at least a portion of the polarizable analyte retained by the electrical gradient between the members wherein the members are in a position removed from a source of the electrolyte.

Claim 30 (new): The device of claim 29, further comprising a resin material, wherein at least a portion of each of said end regions of said electrically-conductive members is contained within said resin material.

Claim 31 (new): The device of claim 30, wherein said resin material comprises an epoxy bead.

Claim 32 (new): The device of claim 29, further comprising a porous material encapsulating said end regions.

Claim 33 (new): The device of claim 29, wherein at least a portion of at least one of said electrically conductive members includes one or more surface features selected from the group consisting of edges, corners, angles, bumps, protrusions, teeth, undulations, notches, indentations, waves, ripples, fins, and any combination thereof.

Claim 34 (new): The device of claim 33, wherein said members include surface features along confronting portions of their end regions comprising edges or points.

Claim 35 (new): The device of claim 29, further comprising a non-conductive filament extending along at least one of said members.

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Claim 36 (new): The device of claim 29, wherein said support is configured as a handle permitting an operator to hold and position the device by hand.

Claim 37 (new): The device of claim 29, wherein two or more pairs of said coextensive, elongated, electrically-conductive members are held by said support.

Claim 38 (new): The device of claim 29, further comprising a DC power source adapted for electrical communication with said electrically-conductive members.